

--- Call/transport path
 --- Signaling/control path

Figure 1 is a block diagram of a network architecture. The diagram shows a central HLR (Home Location Register) connected to an MSC/VLR (Mobile Switching Center/Visitor Location Register) and an SGSN (Serving GPRS Support Node). The HLR is connected to the MSC/VLR via a solid line (call/transport path) and to the SGSN via a dashed line (signaling/control path). The MSC/VLR is connected to the SGSN via a solid line (call/transport path). The MSC/VLR is also connected to a BSS (Base Station System) via a solid line (call/transport path) and a dashed line (signaling/control path). The SGSN is connected to the BSS via a solid line (call/transport path) and a dashed line (signaling/control path). The BSS is connected to an MS (Mobile Station) via a solid line (call/transport path) and a dashed line (signaling/control path). The diagram is labeled with reference numerals: 10 for the HLR, 20 for the MSC/VLR, 30 for the SGSN, 40 for the BSS, and 50 for the MS. The label 'GPRS Interface' is placed between the MSC/VLR and the SGSN.

Figure 1
 (PRIOR ART)

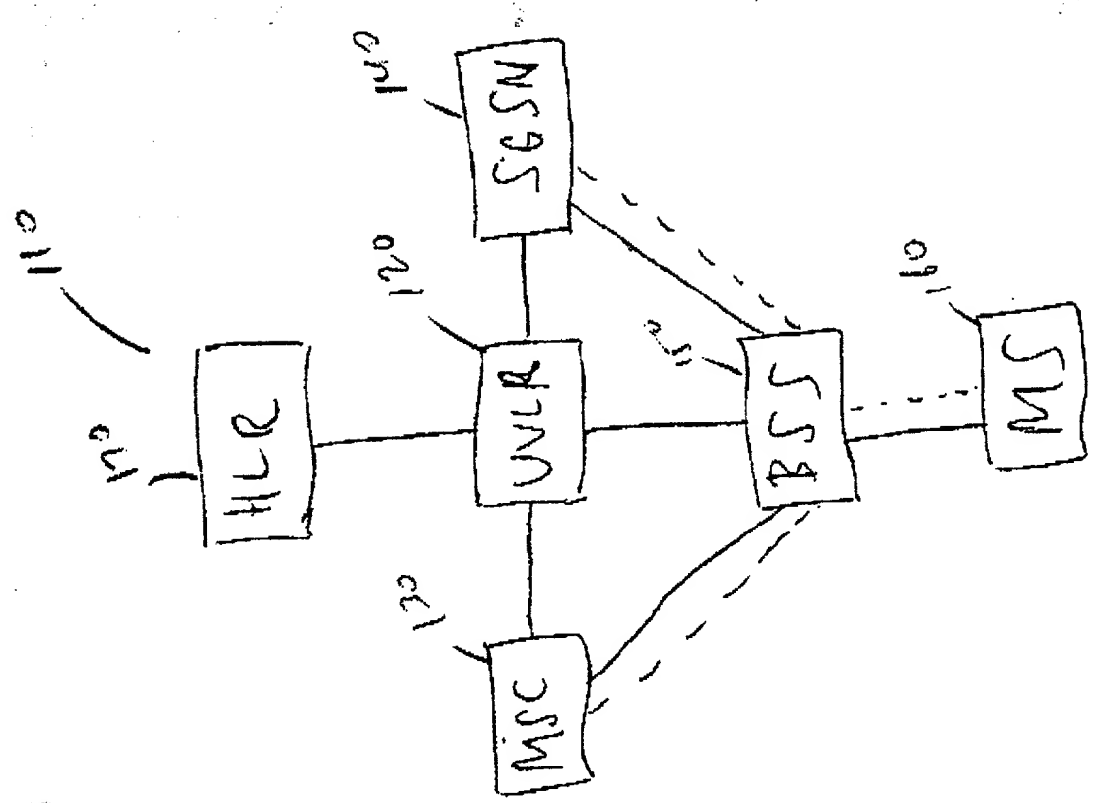
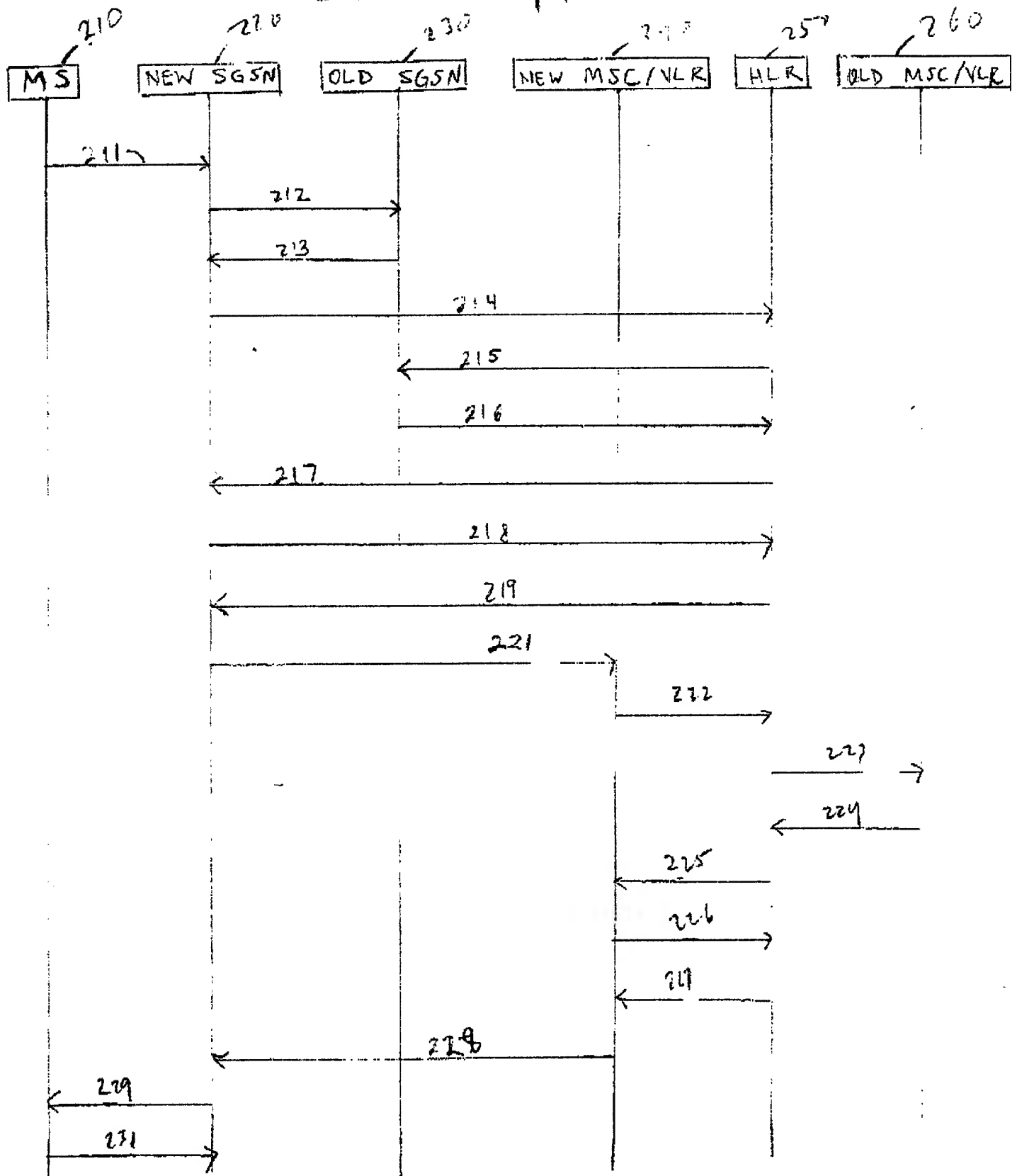


Figure 2

Current Implementation



(PRIOR ART)

Figure 3

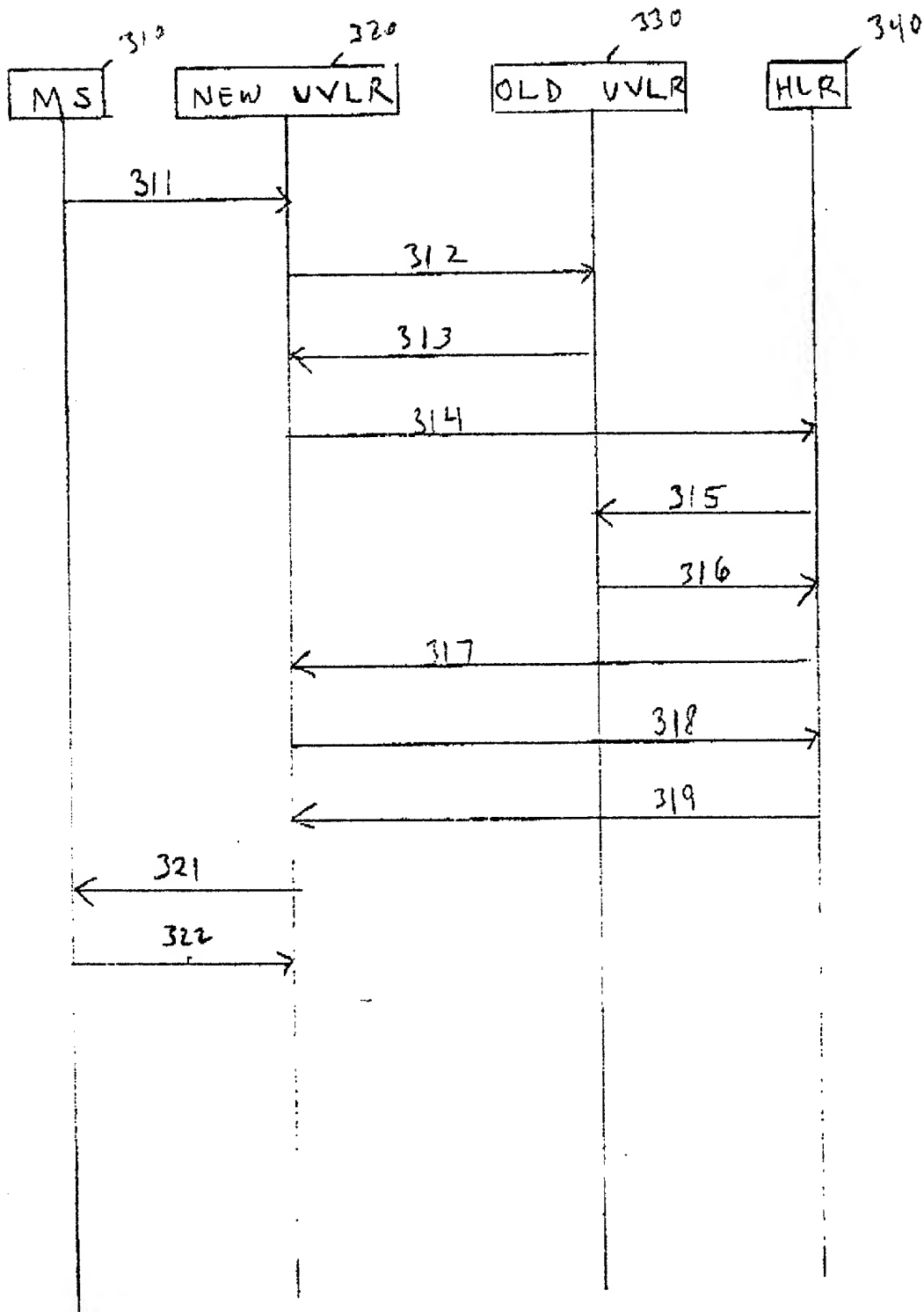
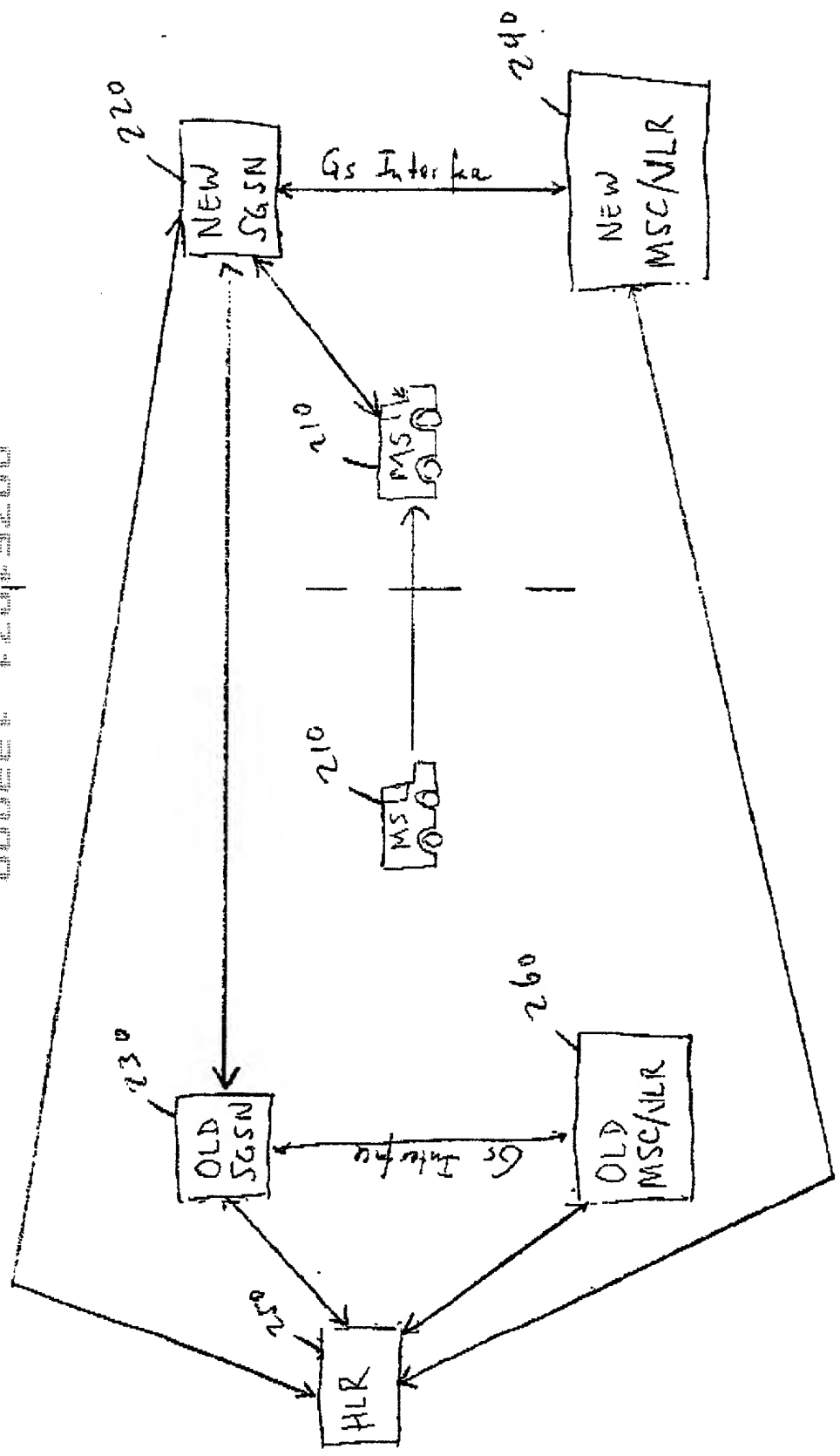


Figure 4

FIG. 5



(PRIOR ART)

Figure 5

OLD SERVICE AREA

NEW SERVICE AREA

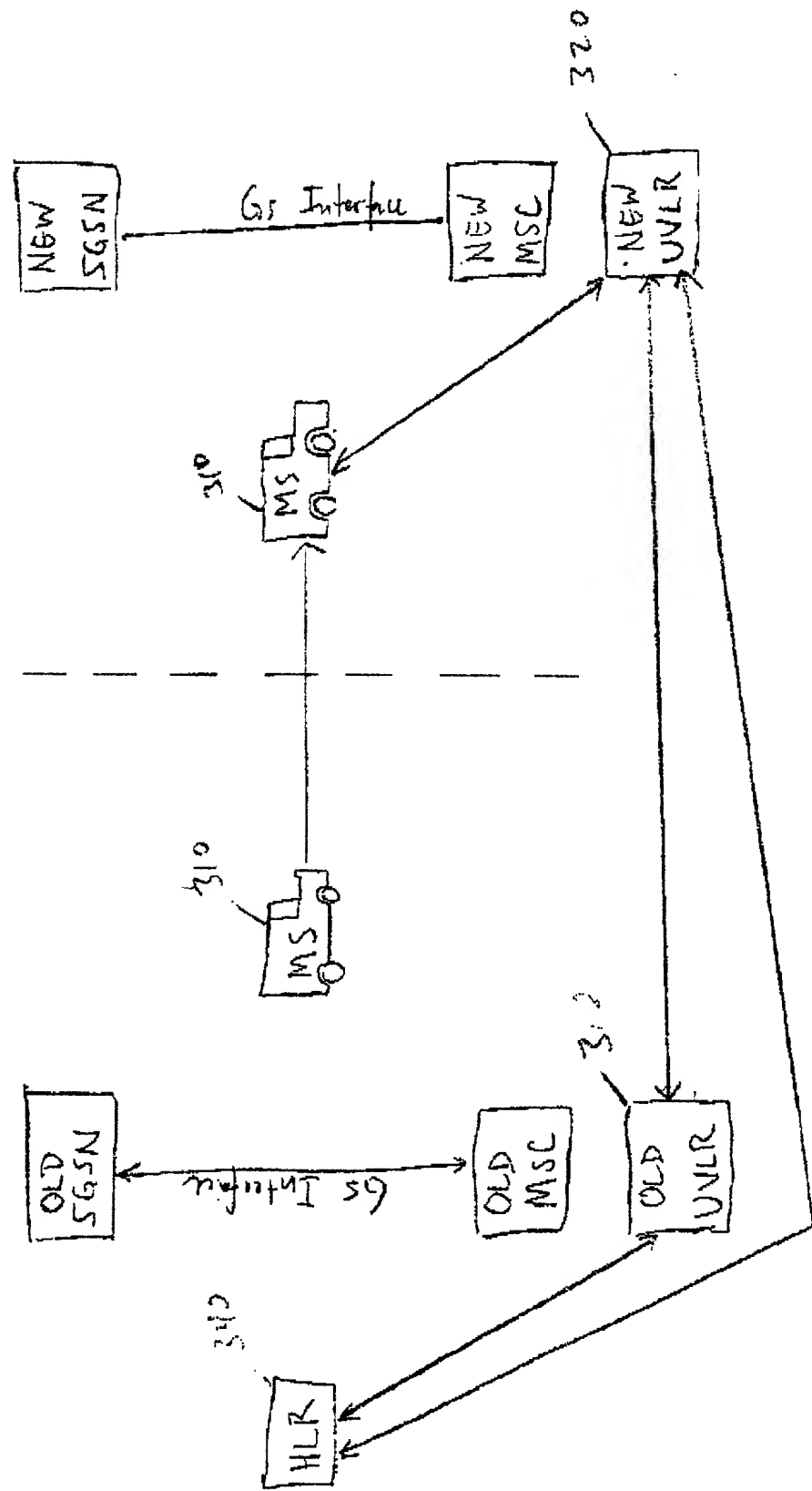
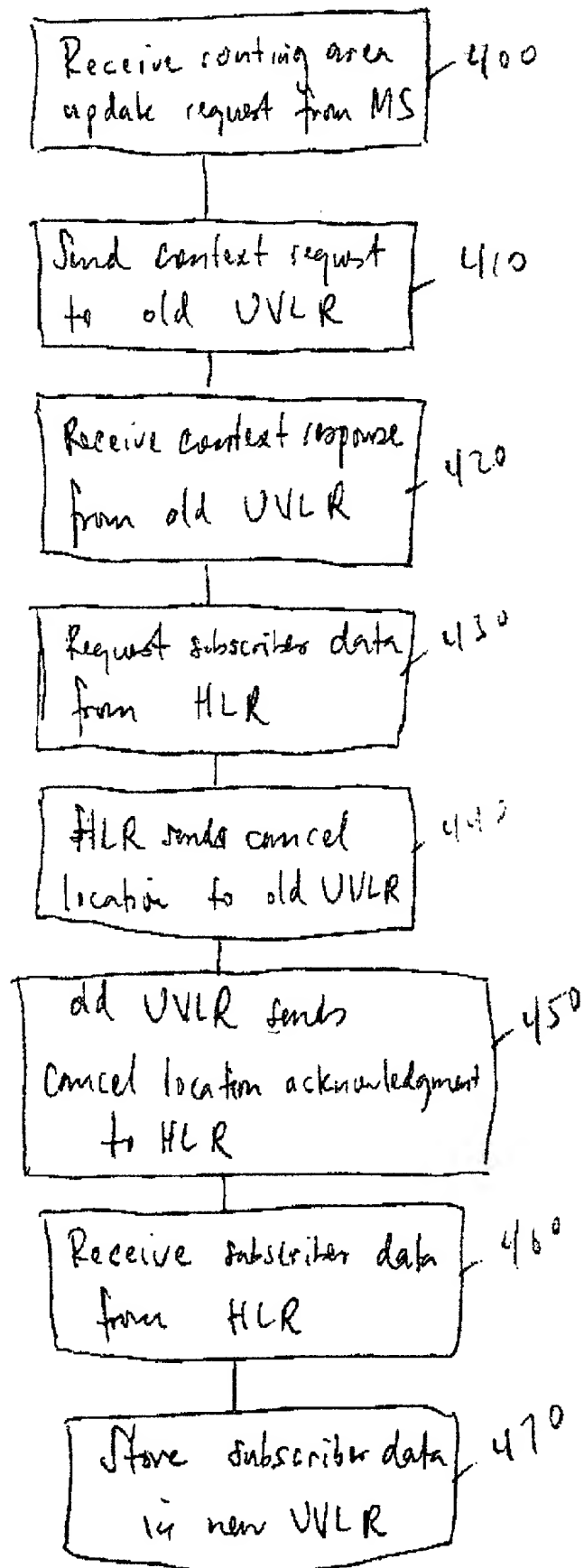


Figure 6



MS — mobile station

VLR — visited visitor location register

HLR — home location register

Figure 7

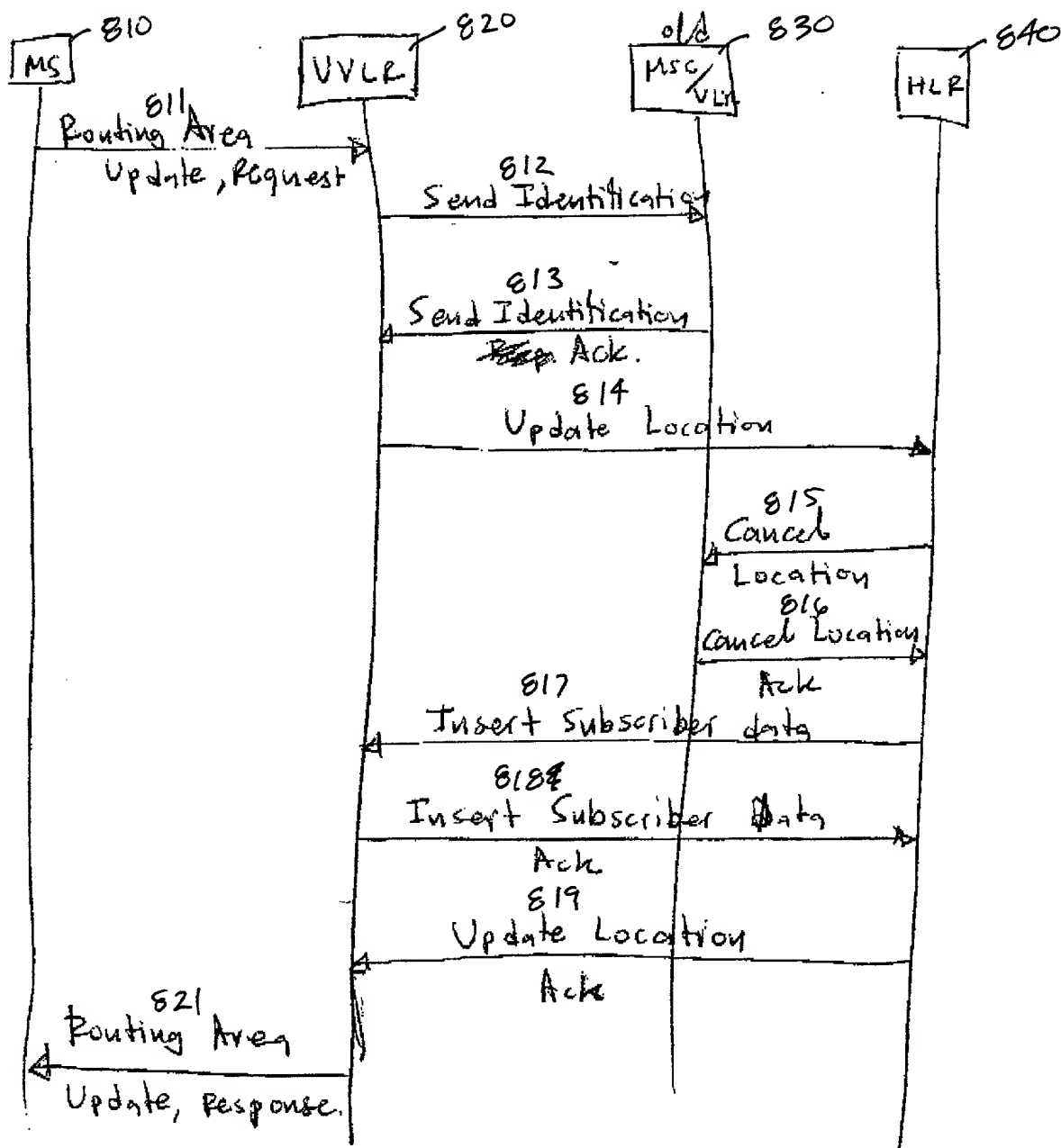


FIG. 8

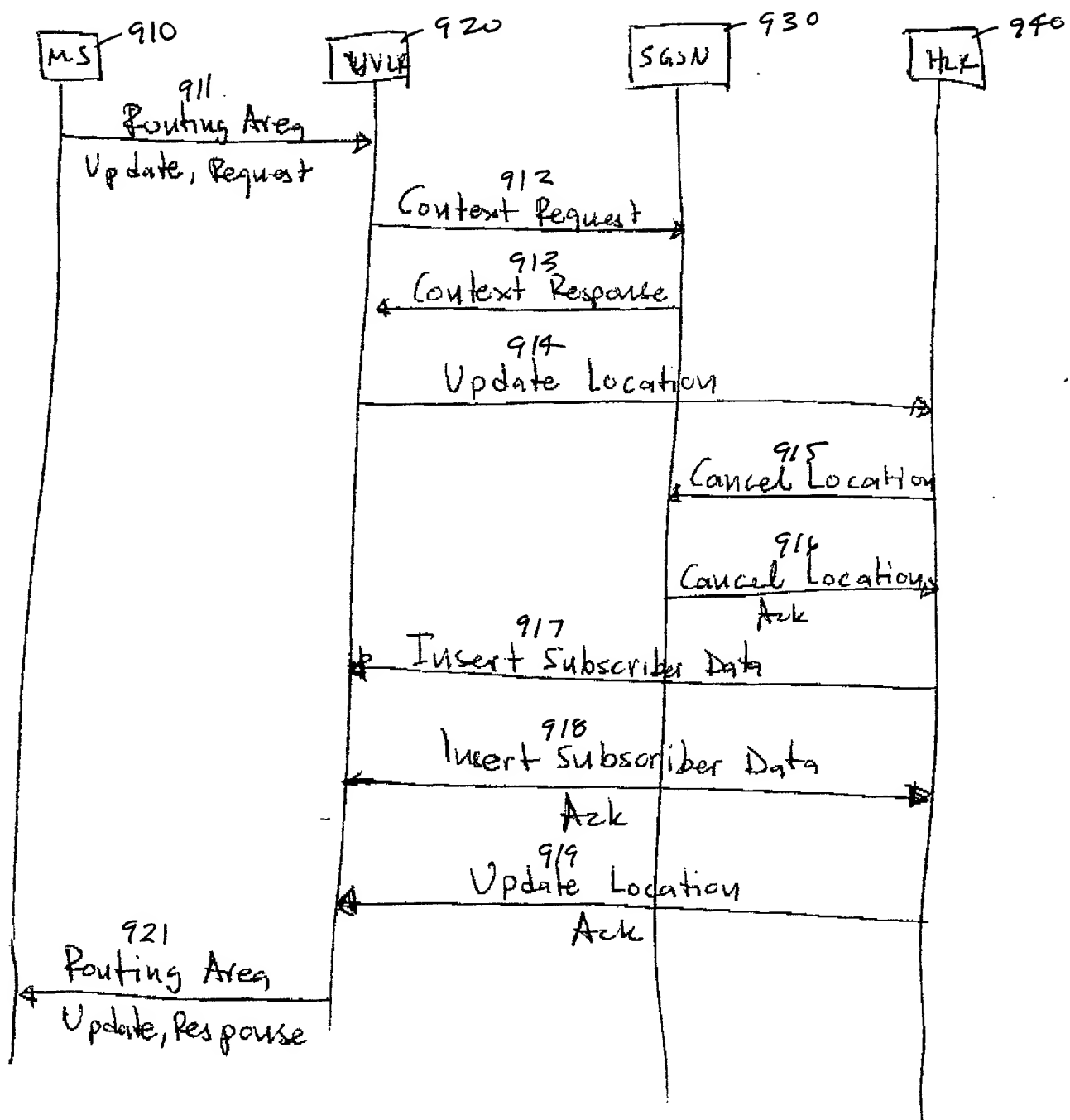


FIG. 9

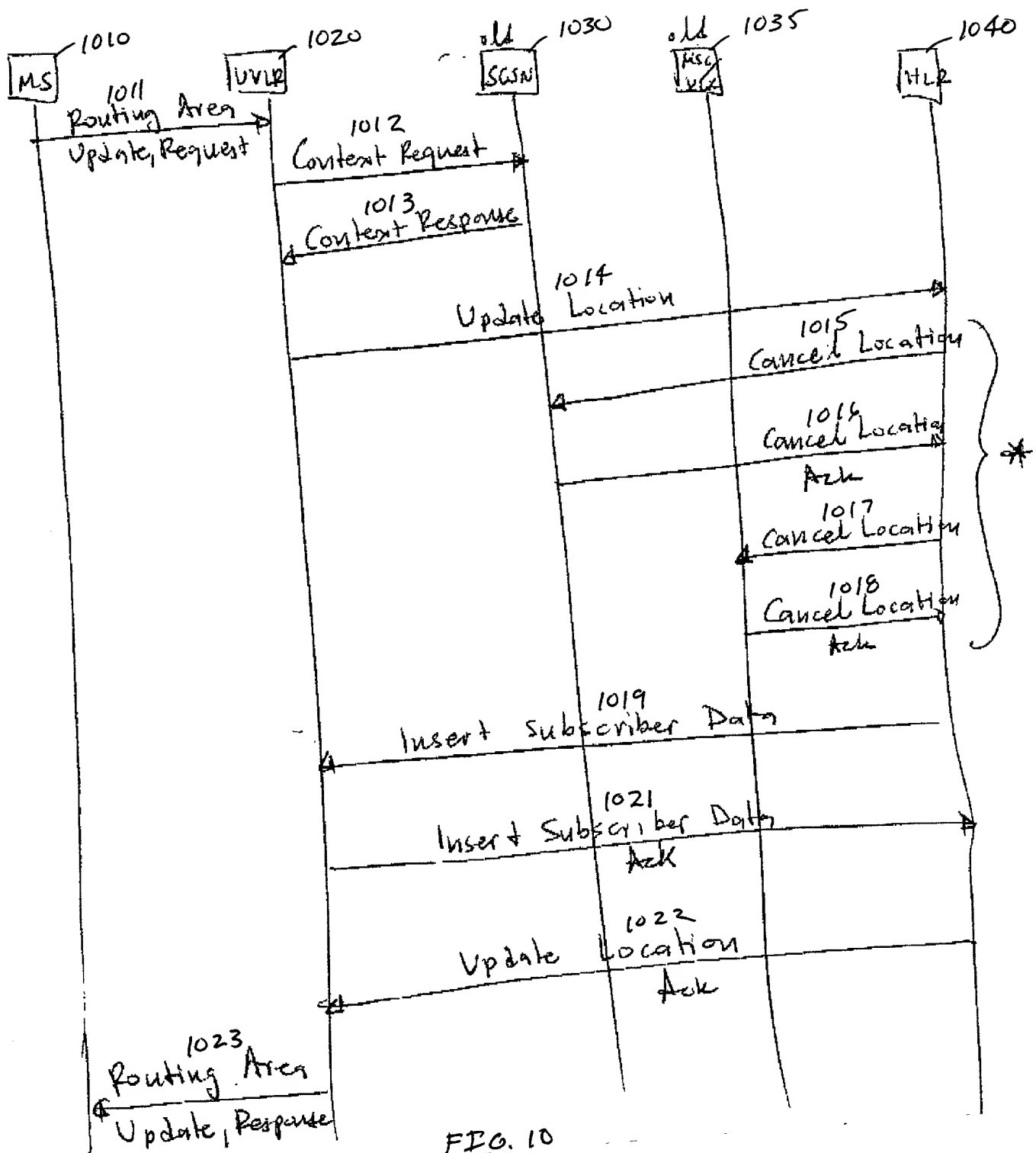


FIG. 10